ON A NEW SPECIES OF THE GENUS *CTENOTRYPAUCHEN* STEINDACHNER.

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Dr. K. H. Barnard, Assistant Director of the South African Museum, has very kindly sent to me five examples of an interesting species of the genus *Ctenotrypauchen* for determination. In a recent revision of the eel-like Gobioid fishes I[1] established the validity of Steindachner's genus and pointed out the importance among these fishes of the form of the ventrals for taxonomic purposes. I had then no specimen of this genus before me and in distinguishing it from *Trypauchen, Amblyotrypauchen* and *Trypauchenichthys* had merely relied on the published descriptions and figures of the species referable to *Ctenotrypauchen*. The present material, on which I am basing the description of a new species, has helped me greatly in understanding precisely the generic limits of the various genera of the sub-family Trypaucheninae.

In external appearance the fishes of this sub-family are very much alike and it is only on the form of the ventrals and the presence or absence of canines that they can be separated into distinct genera. In *Ctenotrypauchen* canines are absent and the ventrals form a disc, which is distinctly notched posteriorly. In this respect *Ctenotrypauchen* is intermediate between *Trypauchen* Cuv. and Val. and *Trypauchenichthys* Bleeker.

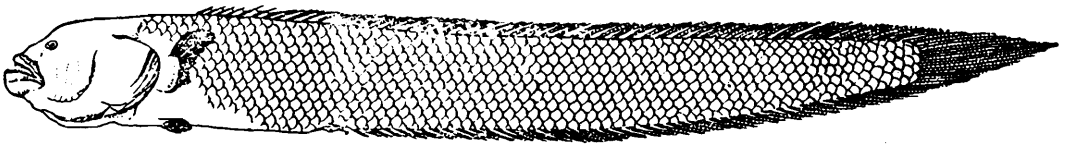
The species described below is the fourth species of the genus *Ctenotrypauchen* known so far, the other three being C. *microcephalus*[2] from "Sungi-duni, in aquis fluviomarinis" (Borneo), *C. wakae*[3] from "Inland sea of Japan in sandy bays" and *C. chinensis*[4] from China. The new species is from the Natal coasts. This apparently discontinuous distribution of the genus is probably due to the fact that these fishes live in mud and are liable to be overlooked by collectors. It is probably on this account that forms from the intermediate regions have not hitherto been brought to light. It is rather unfortunate that we do not know the exact locality whence *C. chinensis* was obtained in China.

Ctenotrypauchen barnardi, sp. nov.

It is a long and slender species, greatly compressed from side to side and gradually tapering posteriorly. The head is broadly pointed posteriorly and its length is contained 5·5 to 5·8 times in the total length without the caudal; it is as deep as the body and its height at the occiput is contained 1·4 times and the greatest width 1·6 times in its length. The height of the body is contained 7·2 to 9·2 times in the total length

[1] Hora, *Rec. Ind. Mus.* XXVI, pp. 155-164 (1924).
[2] Bleeker, *Acta. Soc. Sci. Indo-Neerl.* VIII, p. 62 (1860).
[3] Jordan and Snyder, *Proc. U. S. Nat. Mus.* XXIV, p. 127 (1902).
[4] Steindachner, *Sitzb. Acad. Wiss. Wien.* LV, p. 530 (1867).

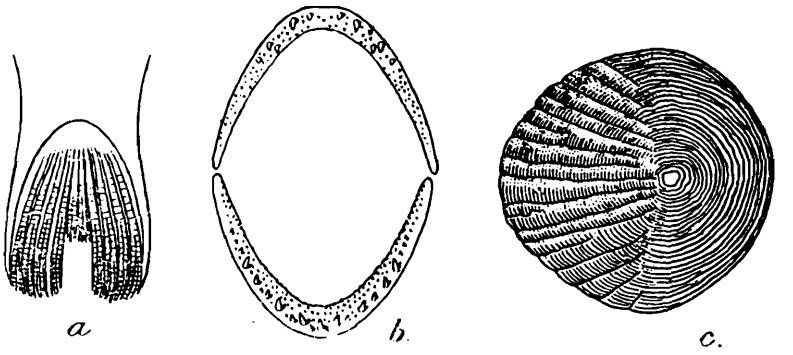
without the caudal. The eyes are minute and thickly covered with skin, they are placed at the dorso-lateral borders of the orbital depressions. The interorbital space is flattened and is somewhat convex. The snout is slightly shorter than one-third the length of the head. The deep pits at the upper edge of opercle are well marked. The gill-openings are restricted to the sides and do not extend forwards ; the isthmus is fairly



TEXT-FIG. 1.—Lateral view of *Ctenotrypauchen barnardi*, sp. nov., ×13/16.

broad. The mouth extends to just below the anterior end of the orbital depression, the lower jaw is slightly longer than the upper. The mouth is obliquely directed upwards. The teeth are simple and are arranged in two rows, those of the outer row being somewhat enlarged ; there are no canines. There is a sharp, bony crest along the mid-dorsal longitudinal axis of the head posterior to the eyes. There is a similar nuchal crest, the ridge being posteriorly continued into the dorsal fin. There are four branchiostegal rays and the gill-rankers are represented by mere elevations on the arches. The anterior nostrils are provided with distinct tubes and the barbels are totally absent.

There are no scales on the head, but the skin is provided with many mucous pores. The body is covered with rounded, cycloid scales, but the area from nape to front of dorsal and the whole of the belly are naked. On the sides the scales extend right up to the bases of the pectorals and the gill-openings. There are about 65 to 67 series of scales along the lateral line and about 12 series of scales between the bases of the dorsal and the anal fins.



TEXT-FIG. 2.—Scale, jaws and ventral fins of *Ctenotrypauchen barnardi*, sp. nov. *a*. Ventral fins × 4½ ; *b*. Jaws × 3⅜ ; *c*. Dorsal scale from about the middle of the fish × 15¾.

A scale from the middle of the body is more or less ovoid in general outline ; it is somewhat broader than long. The nucleus is situated in the centre of the scale and there are a number of fine circular striae all round it. The anterior half of the scale is provided with about 16 radii to the periphery from the nucleus. The whole of the scale is covered with a membrane of the skin.

The dorsals are connected together, there being six spines and from 49 to 51 rays. The anal is similar to the dorsal and contains one spine and 44 to 47 rays. The dorsals commence about three scales behind the base of the pectoral. Both the dorsal and the anal fins are connected with the caudal, which is greatly elongated and is acutely pointed behind. The caudal fin is longer than the head and contains 17 rays. The upper half of the pectoral is much more developed than the lower, the fin is, as a whole, directed upwards and backwards and is greatly elongated; its length is contained 2 to 2·6 times in the length of the head. The ventrals are small and are united to form a disc which is deeply notched posteriorly; their length is contained from 3 to 4 times in the length of the head.

The colour in spirit is uniformly brownish, speckled with dull white in the region of the body and the tail.

Locality.—Coasts of Natal, South Africa. Dr. Barnard informs me that he has collected one specimen of this species in the Delagoa Bay.

Type-specimen.—The type-specimen and one co-type are preserved in the South African Museum, Cape Town; while the remaining three co-types are in the collection of the Zoological Survey of India.

Relationships.—*Ctenotrypauchen barnardi* is distinguished from *C. microcephalus* in possessing a larger head and in having five rays besides a spine in the pelvic fin; from *C. wakae* in proportions and lepidosis and from *C. chinensis* in the form of the pectorals and in possessing more scales along the lateral line. The new species is closely allied to *C. microcephalus* in lepidosis and in the number of fin rays, while the Japanese and the Chinese species show close resemblance in possessing fewer rows of scales along the lateral line.

Measurements in millimetres.

Total length excluding caudal	101·0	98·0	87·0	65·5
Length of head	17·2	17·0	15·7	11·2
Height of head	12·3	11·8	10·6	8·0
Width of head	10·6	10·5	9·7	6·8
Height of body	13·0	10·5	12·0	8·0
Length of pectoral	8·0	7·0	7·5	4·2
Length of ventral	5·0	5·6	4·0	3·8